IoT - High Flow Diaphragm Valve Series

The ULTRA FAST series in designed for atomic layer deposition applications, high cycling, high temperature and ultra-high purity processes, under severe repeatability demands. With its unique flow adjustment mechanism, this series allow flow fine-tuning during operation.

With our award winning IOT valves platform, the ULTRA-FAST Valves series is available in smarter version (IoT enabled). You can make your processes automated with the IoT powered smart version (wired or wireless) which can be controlled and monitored remotely, providing alert triggering, auto scheduling, On/Off status all on in the palm of your hands via our cloud based portal and mobile application.

Features and Benefits

- *Manual and pneumatic actuated (NC and NO) versions available*
- *End connection sizes: 3/4“ (Cv2.8) and 1/2“ (Cv2.5)*
- *24 Vdc Powered*
- *ON/OFF status*
- *Alert triggering*
- *Auto-scheduling, remote controlled and monitoring*
- *Wired uplink connectivity : Modbus RTU*
- *Wireless uplink connectivity: Supports - LoRaWAN 1.0*
- *FCC certified*

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Location:
North America

Details

Challenge: Manage Argon used for ID purge of gas lines during installation and welding at a semiconductor fabrication (fab) site.

Solution: Install the IoT enables Smart High Flow (HF) Diaphragm valve, in a high flow manifold combined with metering valves to

- Automate and control the purge manifold using the smart HF valve
- Provide control (mobile app) to monitor and apply corrective actions

Result: Reduce any/all wastage of the Argon gas by allowing the operation to be automated with the work schedule (calendar) of the facility and easy monitoring of any leaks by data available in real time.

IOT High Flow Diaphragm Valves enables remote monitoring and management of Gas system eliminating gas wastage

This application is for Argon used for ID purge of gas lines during installation and welding at a semiconductor fabrication (fab) site. This purge gas is necessary during work times (≈ 6 AM – 4:30 PM) but not during the night or weekends. The operators are supposed to turn off the purge flows during the non-working times but this task is frequently not done. This results in the wasting of UHP Argon.

There is a multitude of purge lines attached to a manifold via manual metering valves. The metering valve provides the purge flow control on each plumbing line that is being purged.

UCT – Fluid solutions provided the Smart UF valves along with the smart mobile app to program, control and monitor the Argon gas delivery system and avoid any accidental wastage of the gas, providing customer with complete control (local and remote) of the system, via a mobile app and integrating data into their cloud-based system.